

**REMARKS**

In the Office Action mailed March 16, 2010, it was noted that claims 15-28 are pending in the application and were rejected under 35 U.S.C. § 103(a). In rejecting the claims, the following references were cited: U.S. Patents 5,726,978 to Frodigh et al.; 6,052,593 to Guimont et al.; 6,917,580 to Wang et al.; and 6,990,348 to Benveniste and U.S. Patent Application Publications 2002/0082016 by Obayashi; 2002/014017 by Li et al. and 2004/001429 A1 by Ma et al. The rejections are traversed below.

**Rejections under 35 U.S.C. § 103(a)**

In item 2 on pages 2-8 of the March 16, 2010 Office Action, claims 15, 16, 18-20, 27 and 28 were rejected under 35 U.S.C. § 103(a) as unpatentable over Guimont et al. in view of Benveniste. In rejecting the claims, it was asserted that "allocating the sub-carriers to the radio cells, to make the sub-carriers available during a first time period to each radio cells for transmission of information" (Office Action, page 3, lines 3-4) and "allocating the sub-carriers to the radio cells, the sub-carriers being allocated by assigning each of the sub-carriers only to a subset of the radio cells including at least two radio cells for transmission of the information" (Office Action, page 3, lines 5-7) were disclosed in the Abstract, Fig. 1 and column 4, lines 19-40 of Guimont et al. Furthermore, it was asserted the only limitation recited in claim 15 not taught by Guimont et al. was "that the sub-carriers are allocated during different time periods" (Office Action, page 3, lines 13-14).

However, the quotations above from lines 3-7 on page 3 of the March 16, 2010 Office Action do not contain all of the limitations recited in claim 15 and the missing limitations amount to more than merely "that the sub-carriers are allocated during different time periods" as stated in the Office Action. Claim 15, requires that the allocating of "the sub-carriers to the radio cells, to make the sub-carriers available during a first time period to each radio cell" (as amended herein) is performed "**temporarily** during ... [the] first time period" (claim 15, line 4, emphasis added) prior to "allocating the sub-carriers to the radio cells during a second time period, the sub-carriers being allocated by assigning each of the sub-carriers only to a subset of the radio cells" (claim 15, lines 7-8). An example of the first time period provided in paragraph [0035] of the Substitute Specification is "a first OFDM frame."

As discussed most recently in the Appeal Brief filed November 23, 2009, Fig. 1 of Guimont et al. illustrates the cells 10 being grouped in clusters of cells 12. Each cluster 12 uses all the available frequencies (subsets A to G) while any single cell 10 of a cluster uses only a

subset (e.g. subset A) of the available frequencies (see, column 4, lines 7-40). Thus, within the cluster the base stations do not interfere because they use different frequencies. Although in Guimont et al., the allocation of the frequencies may be changed, such a change occurs only when an alternative allocation is judged to be beneficial. Otherwise, the allocation may be maintained indefinitely. A change of the allocation of the frequencies is not an event occurring after or at predetermined times. Thus, no allocation of the frequencies is ensured of being performed **"temporarily during a first time period"** as required on line 4 of claim 15.

The March 16, 2010 Office Action attempted to overcome the deficiencies of Guimont et al. by citing Fig. 2 and column 6, lines 5-10 of Benveniste as disclosing "temporarily during a first time period allocating the sub-carriers to the radio cells (during initialization phase {*first time period*}, each cell is assigned a control channel and at least one traffic channel ...)" (Office Action, page 3, lines 16-18) and column 10, lines 9-34 of Benveniste as disclosing "allocating the sub-carriers to the radio cells during a second time period" (Office Action, page 3, lines 18-19). It was asserted that it would be obvious to combine these teachings in Benveniste with those in Guimont et al., "to selectively reassign channels to a call after initial allocation ... to efficiently create or revise a frequency plan" (Office Action, page 4, lines 4-6).

It is submitted that the additional disclosure cited in Benveniste does not overcome the deficiencies of Guimont et al. Figure 2 of Benveniste clearly shows that the "improved channel re-use criteria" (block 2700) is based on "signal-to-interference ratios and/or signal attenuation" (block 2600) and thus, "Selectively re-assign[ing] channels" (block 2800) will only occur if signal-to-interference ratios and/or signal attenuation indicates that an improvement can be made. Thus, like Guimont et al., Benveniste does not disclose a specified period during which allocation of the sub-carriers to the radio cells is temporary, as required by claim 15. For the above reasons, it is submitted that claim 15 patentably distinguishes over Guimont et al. in view of Benveniste.

Furthermore, nothing has been found in the cited portions or elsewhere in Guimont et al. and Benveniste regarding any suggestion that the revised assignment of channels meets the limitation of "assigning each of the sub-carriers only to a subset of the radio cells **including at least two radio cells**" (claim 15, last 2 lines, emphasis added). No mention has been found in either reference requiring that each subset have at least two radio cells. Therefore, it is submitted that claim 15 patentably distinguishes over Guimont et al. and Benveniste for this additional reason.

Claims 16 and 18-20 depend from claim 15 and therefore, it is submitted that claims 16 and 18-20 patentably distinguish over Guimont et al. and Benveniste for at least the reasons discussed above with respect to claim 15.

Claim 27 recites

assigning the sub-carriers of the at least one frequency band to said at least two radio cells during a first time period to make all of the sub-carriers temporarily available to each radio cell for transmission of information, and ... during a second time period temporarily each of the sub-carriers is available to a subset of the at least two radio cells

and claim 28 recites

temporarily assigning the sub-carriers of the at least one frequency band to the at least two radio cells during a first time period so that the sub-carriers are temporarily available to each radio cell for the transmission of the information; and ... temporarily assigning the sub-carriers of the at least one frequency band among the at least two radio cells during a second time period so that each of the sub-carriers is temporarily available to a subset of the at least two radio cells

For reasons similar to those discussed above with respect to claim 15, it is submitted that claims 27 and 28 patentably distinguish over Guimont et al. and Benveniste.

In item 3 on pages 8-9, claim 17 was rejected as unpatentable over Guimont et al. and Benveniste and further in view of Wang et al. Claim 17 depends from claim 15 via claim 16. Nothing has been cited or found in Wang et al. suggesting modification of Guimont et al. and Benveniste to overcome the deficiencies discussed above with respect to claim 15. Therefore, it is submitted that claim 17 patentably distinguishes over Guimont et al., Benveniste and Wang et al. for at least the reasons discussed above with respect to claim 15.

In item 4 on pages 9-10, claims 21 and 22 were rejected as unpatentable over Guimont et al. and Benveniste and further in view of Li et al. Claims 21 and 22 depend from claim 15. Nothing has been cited or found in Li et al. suggesting modification of Guimont et al. and Benveniste to overcome the deficiencies discussed above with respect to claim 15. Therefore, it is submitted that claims 21 and 22 patentably distinguish over Guimont et al., Benveniste and Li et al. for at least the reasons discussed above with respect to claim 15.

In item 5 on pages 10-11, claim 23 was rejected as unpatentable over Guimont et al., Benveniste and Li et al. and further in view of Frodigh et al. Claim 23 depends from claim 15 via claims 21 and 22. Nothing has been cited or found in Frodigh et al. suggesting modification of Guimont et al. and Benveniste to overcome the deficiencies discussed above with respect to claim 15. Therefore, it is submitted that claim 23 patentably distinguishes over Guimont et al.,

Benveniste, Li et al. and Frodigh et al. for at least the reasons discussed above with respect to claim 15.

In item 6 on pages 11-12, claims 24 and 25 were rejected as unpatentable over Guimont et al., Benveniste and Frodigh et al. and further in view of Obayashi. Claims 24 and 25 depend from claim 15 via claims 21-23. Nothing has been cited or found in Obayashi suggesting modification of Guimont et al. and Benveniste to overcome the deficiencies discussed above with respect to claim 15. Therefore, it is submitted that claims 24 and 25 patentably distinguishes over Guimont et al., Benveniste, Frodigh et al. and Obayashi for at least the reasons discussed above with respect to claim 15.

In item 7 on pages 12-13, claim 26 was rejected as unpatentable over Guimont et al. and Benveniste and further in view of Ma et al. Claim 26 depends from claim 15. Nothing has been cited or found in Ma et al. suggesting modification of Guimont et al. and Benveniste to overcome the deficiencies discussed above with respect to claim 15. Therefore, it is submitted that claim 26 patentably distinguishes over Guimont et al., Benveniste and Ma et al. for at least the reasons discussed above with respect to claim 15.

#### **New Claim 29**

New claim 29 depends from claim 26 and provides a definition of the first time period based on the description in paragraph [0035] of the Substitute Specification. As discussed above, Guimont et al. and Benveniste do not disclose a specific period for the temporary allocation of sub-carriers. Furthermore, it is submitted that there is no suggestion in any combination of the cited references that the first time period is "a predetermined number of one or more orthogonal frequency division multiplexing frames" as recited in new claim 29. Therefore, it is submitted that claim 29 further patentably distinguishes over the cited references.

#### **Summary**

It is submitted that the references cited by the Examiner do not teach or suggest the features of the present claimed invention. Thus, it is submitted that claims 15-29 are in a condition suitable for allowance. Reconsideration of the claims and an early Notice of Allowance are earnestly solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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